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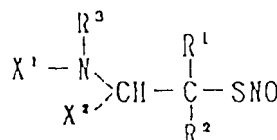
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AT BE CH DE DK ES FR GB GR IT LI LU NL SE(68) Date of deferred publication of the search report:
04.09.91 Bulletin 91/36(71) Applicant: **TAKEDA CHEMICAL INDUSTRIES,
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Elkington and Fife Beacon House 113
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London, WC2B 6PP(GB)(54) **Nitrosothiol derivatives, their production and use.**

(57) Novel nitrosothiol derivatives of the formula:



not an acetyl group or γ -glutamyl group, and salts thereof, show excellent hypotensive action, anti-arrhythmic action, anti-anginal action, cardiotonic action or coronary vasodilation, thus being useful as therapeutic or prophylactic agents for the cardiovascular diseases such as hypertension and angina pectoris.

wherein R¹ and R² are independently a hydrogen atom or a hydrocarbon residue which may be substituted; R³ is a hydrogen atom, an acyl group or a hydrocarbon residue which may be substituted; X¹ is a hydrogen atom, an acyl group, a lower alkoxy group or a hydrocarbon residue which may be substituted; X² is an acyl group or a carboxyl group which may be esterified or which may form an amide; with a proviso that when X² is a carboxyl group X¹ is not a hydrogen atom or acetyl group and that when both R¹ and R² are hydrogen atoms X¹ is

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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	TETRAHEDRON LETTERS vol. 26, no. 16, 1985, pages 2013-2016, GB; T.W. HART: "Some observations concerning the S-Nitroso and S-Phenylsulphonyl derivatives of L-Cysteine and glutathione" * the whole document *	1-4, 13-25,35	C 07 C 381/00 C 07 K 5/00 A 61 K 31/655
A	JOURNAL OF THE CHEMICAL SOCIETY - PERKIN TRANSACTIONS I 1979, pages 1969-1974; R. BONNETT et al.: "Nitrosation and Nitrosylation of Haemoproteins and Related Compounds. Part 2. The Reaction of Nitrous Acid with the Side Chains of alpha-Acyl-amino-acid Esters" * the whole document *	1-4, 13-17,35	
A	TETRAHEDRON LETTERS vol. 26, no. 32, 1985, pages 3879-3882, GB; T.W. HART et al.: "Thiolsulphonate derivatives of amino acids" * the whole document *	1-4, 13-25,35	
A,P	US-A-4 900 719 (G.E. MEANS et al.) * the whole document *	1,33,34	
A,D	ANGEWANDTE CHEMIE vol. 87, no. 10, 1975, pages 372-378, Weinheim, DE; W.M. WEIGERT et al.: "D-Penicillamin - Herstellung und Eigenschaften" * the whole document *	35	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	CHEMICAL ABSTRACTS vol. 95, no. 15, 12 October 1981, page 62, abstract no. 126235k, Columbus, Ohio, US; D. ZIEBARTH et al.: "Nitrosation of orally administered drugs under simulated stomach conditions" & IARC Sci. Publ. 1980, vol. 31 (N-Nitroso Compd.: Anal., Form. Occurrence), pages 231-244	1,33	C 07 C 381/00 C 07 K 5/00 A 61 K 31/00
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
Berlin		21 June 91	RUFET J.M.A.
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention		E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document	